Sustainable implementation of E-Learning as a change process at universities

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1 eLearning at universities – Where will it go?

During the last years substantial resources were invested to exploit the potentials of eLearning in higher education. There are a number of European initiatives (such as the eEurope 2005 Action plan), national programs (such as the Virtual Campus in Switzerland) and not to forget a lot of commitment of individual project teams within many universities.
However, looking at the returns on these investments, we don't see a prosperous eLearning landscape, but get quite a disillusioning picture. Studies from the University of Twente (Collis 2002) and the University of Lugano (Lepori 2003) show two things: eLearning has not (yet) changed the teaching in higher education in a fundamental way, but got stuck at a project level. There are high-quality projects, but also a lot of eLearning ruins – projects, started with great enthusiasm, but were abandoned, after the project funding came to an end. The promises and high expectations toward digital universities were replaced by a "wait-and-see" attitude in many universities.
Will eLearning become just a temporary hype, which will be soon replaced by the next pedagogical trend, or will it become a catalyst for university teaching? According to Rogers' five criteria for the diffusion of an innovation, eLearning has only a small chance to survive: "The relative advantage, the benefits are not clear, not high enough perceived by the potential users, eLearning is not compatible yet with existing structures and values, eLearning is still complex, the easiness of experimenting with eLearning is often not provided, the benefits of eLearning are not easy to communicate." (Seufert 2003)
Although the overdrawn expectations towards eLearning in the past are now seen more realisticly, there are still some advocates, who are convinced, that the potentials of eLearning can be exploited to improve higher education in a fundamental way (Bates 2000). One question remains, however: What will make this change happen?

2 A Change Management approach

Based on a survey among 25 eLearning experts in the German-speaking countries Seufert/Euler identified 5 dimensions for a sustainable implementation of eLearning (Seufert/Euler 2003):

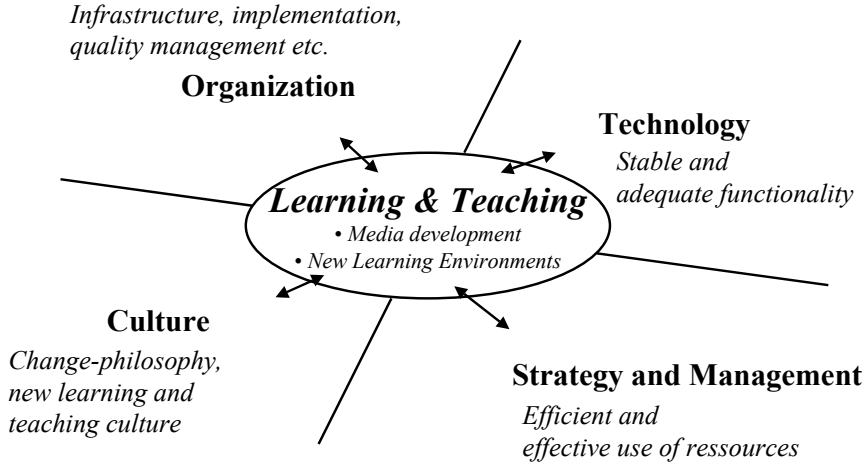

fig 1: dimension for a sustainable implementation of eLearning

But what to start with and how to do it? The sustainable implementation of eLearning can be seen as change process with 4 Phases:

1. Set the strategic target

„Institutional change, to be effective, needs to be led from the top, starting with a vision of what the new organization is to be like“ (Brown 2002). eLearning is not a value for itself. The crucial question an organization has to ask is “What do we want to use eLearning for?” Collis (2002) analyzed the most frequent objectives of ICT policies in higher education institutions, among which we find a broad range of objectives regarding pedagogical (enhancing quality of learning), economical (e.g. enhancing cost-effectiveness, generating institutional income), business (e.g. enhancing competitiveness, enhancing status and reputation of the institution) and organisational (e.g. enhancing flexibility) aspects.

An important aspect in this phase is, that the eLearning approach has to be aligned with the overall university development. The agreement on a strategic aim has to be followed by a commitment for the next steps in the implementation process.

2. Need analysis

In order to realize the strategic approach, it is important to know the specific change needs of the organization. I get back to the five sustainability dimensions, as they can serve as guiding principal to formulate the necessary questions to analyze the situational needs for change. Let’s have a look some of the questions which should be answered in this phase:

<u>learning & teaching:</u>

- What is the prevailing learning paradigm?
- How is the faculty development regarding pedagogical competence organized?
- How does the quality management processes for teaching look like?

... and how does it have to change to support the strategic approach?

<u>culture:</u>

- What is the standing of teaching in comparison with research within the institution?
- What are the experiences, motivation, attitude and expectations regarding eLearning of the main stakeholders (e.g. profs, students, deans, boards)?
- Who are potential change agents within the organization?
- What is the communication culture within the organization?
- How does communication sharing happen?

... and how does it have to change to support the strategic approach?

<u>technology</u>

- What is the current software & hardware infrastructure for eLearning?
- How familiar are the stakeholders (e.g. academic staff, students) with technology?
- What technological support structures are there?
- *... and how does it have to change to support the strategic approach?*

<u>organization</u>

- What are the support infrastructure for teaching?
- What are the incentives for teaching/research?
- What are the decisive performance factors for promotions and appointments?
- How is the cooperation within/among the departments organized?
- What are the informal networks?
- *... and how does it have to change to support the strategic approach?*

strategy and management
- What is the current mission of the organization?
- What are the policies for project funding?
- What are the legal regulations for teaching material?
- How is the budget allocation?

... and how does it have to change to support the strategic approach?

3. Plan and Design

Having a profound inside situational context is a sound basis for planning and designing of the implementation process. In addition to planning the technical, financial and organizational infrastructure, the human factor is a critical success factor. An innovation will only be adopted, if the key stakeholders are motivated and competent to manage the change. Motivation and ability have to be fostered on the individual, department and the board level (Ford 1996). Here are some of the planning considerations to be taken in this phase:

learning& teaching
- identify eLearning scenarios for university teaching
- provide faculty development program e.g. workshops, certificates
- integrate the new learning approaches in the curricula
- establish or adapt quality management concept to reward good-practice projects and to ensure a continuos improvement process for teaching offerings.

culture
- establish a stakeholder-management e.g. identify and involve change agents and sponsors
- set up target-group specific communication plan, considering various communication vehicles and plan a two-way communication in order to get feedback and raise commitment
- foster knowledge exchange, e.g. organize project lessons learned workshops, inform on committee sessions
- set incentives for innovative teaching environment.

organization
- establish central support structures to reduce technical aversions and challenges for the individual in a discreet way and leverage the pedagogical quality
- set legal guidelines especially regarding copyright and intellectual property for the media production
- revise the promotion process to reward teaching excellence and to foster pedagogic competence of the teaching staff

technology
- build technical architecture e.g. selection of central LMS, support for standard authoring tools, provide networked workstations for staff and students

strategy and management
- set up a funding plan e.g. project funding guidelines
- identify external cooperation e.g. with other universities, companies, commercial eLearning providers

An important issue is the timing of these activities. The involvement of key stakeholders at an early stage in order to prevent resistance, the not-invented-here-syndrome, is a crucial consideration.

4. Implement and Improve

A sound planing is a good basis for the final implementation of the innovation. However, even the best plan can't anticipate all developments. So while realizing the implementation plan additional requirements have to be included and adopted in the process.
An important aspect in the implementation phase is the expectation management of the stakeholders. Academic staff which make their first step with teaching online are often disappointed, that the course didn't work, as they have imagined. Students generally appreciate the flexibility, which virtual learning offers them. However the change from a passive learning attitude in classroom session to autonomous learning requirements in a virtual classroom is not always appreciated.
Another important aspect in the implementation phase is the identification and handling of resistance (Brake 2000). The implementation of eLearning brings along changes that are not welcomed by every individual or group within the organization. Concerns are often not expressed openly, but act as "hidden agendas", covered by other official arguments (Doppler 2002). Open and honest communication as well as a sound stakeholder management is an important success factors within this phase.

3 Case study: Implementing eLearning at the University of St.Gallen

The University of St.Gallen fostered the adoption of eLearning by a strategic top-down approach as part of an extensive study reform in 2001-2002. One core element of this reform is that the students spend 25% of the study time in the form of autonomous study, supported by new educational technologies. (Euler 2002).
As for the technical implementation, the University St. Gallen decided to use only a platform for the whole university; the "StudyNet" which is based on Lotus Learning Space. Regularly workshops are offered by the central computing services to the academic staff to acquire the technical skills for using the platform. The technical support center for the platform was also incorporated in the computing services. For complex media production projects there is cooperation with IBM Learning solutions.
The didactical support is provided by the Institute of Business Education and Educational Management, chaired by Prof. Dr. Euler ,in the form of individual coaching and project consulting. As teaching has traditionally a strong standing within the University of St.Gallen, most faculties are open to experiment with the new learning environment.
Funding of eLearning is basically regulated in the framework of the study reform, however there is an additional budget to support elaborate media production.
Board meetings and the university newspaper are some of the communication vehicles used to raise the awareness and the acceptance for the reform. In order to support the knowledge transfer among the faculty, lessons learned sessions take place on a regular basis to discuss different project approaches.

4 Perspectives

eLearning is not a self-runner. Even though the potential of eLearning as a catalyst for teaching innovations is recognized, the current bottom-up approaches taken by many university won't be enough to exploit these potentials (Kerres 2002). The sustainable implementation of eLearning requires an encompassing change process which has to consider the strategic, didactic, organizational, economic and cultural dimension within the university –otherwise eLearning will remain a nice gimmick in the niches of the university.

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